In the Claims

Claim 1 (original): A method of forming an opening through a masking layer, comprising utilization of at least two sequential photomasking steps which in combination form the opening through the masking layer but which are not sufficient alone to form the opening through the masking layer; the photomasking steps each comprising utilization of an etch to pattern the masking layer while a patterned photoresist mask is over the masking layer and each utilizing a separate photoresist mask from one another.

Claim 2 (original): The method of claim 1 wherein the masking layer comprises silicon and nitrogen.

Claim 3 (original): The method of claim 1 wherein the masking layer consists essentially of silicon, oxygen and nitrogen.

Claim 4 (original): The method of claim 1 wherein the opening has a substantially polygonal shape.

Claim 5 (original): The method of claim 1 wherein the opening has a substantially diamond shape.

Claim 6 (original): The method of claim 1 wherein the opening has a substantially rectangular shape.

Claim 7 (original): The method of claim 1 wherein the opening has a substantially square shape.

Claim 8 (original): The method of claim 1 wherein the masking layer is over an electrically insulative material, and wherein the opening is utilized to form a capacitor container within the electrically insulative material.

Claim 9 (original): The method of claim 1 wherein:

the masking layer consists essentially of silicon, oxygen and nitrogen;

the masking layer is over a layer consisting essentially of amorphous carbon;

the layer consisting essentially of amorphous carbon is over an electrically insulative material; and

the opening in the masking layer is utilized to form a capacitor container within the electrically insulative material.

Claim 10 (original): A method of forming an opening, comprising the following steps in the following order:

providing a substrate having a masking layer, the masking layer having an initial thickness;

forming a first patterned photoresist over the masking layer;

using the first patterned photoresist during a first etch into the masking layer, the first etch extending to a depth in the masking layer that is less than the initial thickness of the masking layer;

forming a second patterned photoresist over the masking layer;

using the second patterned photoresist during a second etch into the masking layer, the second etch extending to a depth in the masking layer that is less than the initial thickness of the masking layer; the combined depths to which the first and second etches extend into the masking layer being greater than the initial thickness of masking layer; the first and second etches forming the masking layer into a patterned mask having a third pattern different from the patterns of the first and second patterned photoresists; and

using the patterned mask to pattern a region of the substrate beneath the patterned mask.

Claim 11 (original): The method of claim 10 wherein the masking layer comprises silicon and nitrogen.

Claim 12 (original): The method of claim 10 wherein the masking layer comprises silicon, oxygen and nitrogen.

Claim 13 (original): The method of claim 10 wherein the masking layer consists essentially of silicon, oxygen and nitrogen.

Claim 14 (original): The method of claim 10 wherein the substrate comprises at least two materials, a second material of the at least two materials being between a first material of the at least two materials and the masking layer; wherein the second material is patterned with a third etch while using the patterned mask formed from the masking layer; and wherein the first material is patterned while using the patterned second material as a mask and with a fourth etch different from the third etch.

Claim 15 (original): The method of claim 14 wherein the substrate comprises a semiconductor base; and wherein the at least two materials are over the semiconductor base.

Claim 16 (original): The method of claim 14 wherein the masking layer comprises silicon and nitrogen, and wherein the second material consists essentially of amorphous carbon.

Claim 17 (original): The method of claim 14 wherein the masking layer comprises silicon and nitrogen, wherein the second material consists essentially of amorphous carbon, and wherein the first material consists essentially of doped silicon oxide.

Claim 18 (original): The method of claim 14 wherein the first material comprises a doped silicon oxide and the second material comprises amorphous carbon.

Claim 19 (original): The method of claim 14 wherein the first material comprises a doped silicon oxide, the second material comprises amorphous carbon and the masking layer comprises silicon oxynitride.

Claim 20 (original): The method of claim 14 wherein the first material consists essentially of a doped silicon oxide, the second material consists essentially of amorphous carbon and the masking layer consists essentially of silicon oxynitride.

Claim 21 (original): The method of claim 10 wherein the first pattern comprises substantially linear downwardly-projecting first features, wherein the second pattern comprises substantially linear downwardly-projecting second features, and wherein locations of the downwardly-projecting second features are at approximately right angles to locations of the downwardly-projecting first features.

Claim 22 (original): A method of forming an opening, comprising:

providing a substrate having a layer, the layer having a thickness;

photolithographically forming a first pattern over the layer, the first pattern comprising a first series of downwardly-projecting features;

transferring a substantial reproduction of the first pattern into the layer to a depth which extends less than entirely through the thickness of the layer;

after transferring the substantial reproduction of the first pattern into the layer, photolithographically forming at least one subsequent pattern over the layer, the at least one subsequent pattern comprising a second series of downwardly-projecting features, at least some of the downwardly-projecting features of the second series crossing locations of at least some of the downwardly-projecting features of the first series; and

transferring a substantial reproduction of the at least one subsequent pattern into the layer to a depth which extends less than entirely through the thickness of the layer, the combined depths to which the substantial reproductions of the first pattern and the at least one subsequent pattern are transferred into the layer being entirely through the thickness of the layer.

Claim 23 (original): The method of claim 22 wherein the layer is over a stack of materials, wherein the combined substantial reproductions of the first pattern and at least one subsequent pattern form the layer into a patterned mask having a designated pattern, and further comprising extending a substantial facsimile of the designated pattern into at least one of the materials underlying the patterned mask.

Claim 24 (original): The method of claim 23 wherein the stack comprises a semiconductor substrate and at least two of the materials over the substrate; the two materials being a first material and a second material; the second material being over the first material; wherein a first substantial facsimile of the designated pattern is transferred through the second material with first etching conditions; and wherein a second substantial facsimile of the designated pattern is subsequently transferred to the first material with second etching conditions which are different from the first etching conditions.

Claim 25 (original): The method of claim 24 wherein the first material comprises silicon and oxygen, the second material comprises a spin-on material and the layer comprises silicon and nitrogen.

Claim 26 (original): The method of claim 24 wherein the first material comprises a doped silicon oxide, the second material comprises amorphous carbon and the layer comprises silicon oxynitride.

Claim 27 (original): The method of claim 22 wherein the downwardly-projecting features of the second series cross the downwardly-projecting features of the first series at approximately right angles.

Claim 28 (original): The method of claim 22 wherein the at least one subsequent pattern is only one subsequent pattern.

Claim 29 (original): A method of forming container capacitors, comprising:

providing a semiconductor substrate;

forming a container-scaffold-material over the semiconductor substrate;

forming a masking layer over the container-scaffold-material;

photolithographically forming a first pattern over the first masking layer, the first pattern comprising a first series of trenches;

after forming the first pattern, photolithographically forming a second pattern over the first masking layer, the second pattern comprising a second series of trenches; at least some trenches of the second series crossing locations of at least some of the trenches of the first series, regions where trenches of the second series overlap locations of trenches of the first series being defined as overlap regions and regions where trenches of the second series do not overlap locations of trenches of the first series being defined as non-overlap regions;

forming the masking layer into a patterned mask by extending the overlap regions entirely through the masking layer while not extending the non-overlap regions entirely through the masking layer;

using the patterned mask to form capacitor containers within the container-scaffold-material; and

forming a first capacitor electrode, dielectric material and second capacitor electrode extending within the capacitor containers to form capacitor structures within the capacitor containers.

Claim 30 (original): The method of claim 29 wherein the masking layer comprises silicon and nitrogen.

Claim 31 (original): The method of claim 29 wherein the masking layer consists essentially of silicon, nitrogen and oxygen.

Claim 32 (original): The method of claim 29 wherein the container-scaffold material comprises silicon and oxygen.

Claim 33 (original): The method of claim 29 wherein the container-scaffold material consists essentially of a doped silicon oxide.

Claim 34 (original): The method of claim 33 wherein the container-scaffold material consists essentially of borophosphosilicate glass.

Claim 35 (original): The method of claim 29 further comprising an intervening material between the container-scaffold-material and the masking layer, and wherein the using the masking layer to form capacitor structures within the container-scaffold-material comprises:

using the patterned mask during an etch through the intervening material which patterns the intervening material; and

using the patterned intervening material during an etch of the container-scaffold-material.

Claim 36 (original): The method of claim 35 wherein the intervening material is substantially selectively etchable to both the masking layer and the container-scaffold-material.

Claim 37 (original): The method of claim 35 wherein the container-scaffold-material comprises a doped silicon oxide, wherein the intervening material comprises amorphous carbon, and wherein the masking layer comprises silicon oxynitride.

Claim 38 (original): The method of claim 29 wherein the second series of trenches are substantially orthogonal to locations of the first series of trenches.

Claim 39 (original): The method of claim 29 wherein the overlap regions are substantially diamond in shape.

Claim 40 (original): The method of claim 29 wherein the overlap regions are substantially rectangular in shape.

Claim 41 (original): The method of claim 29 wherein the first series of trenches are wavy lines.

Claim 42 (original): The method of claim 29 wherein the first series of trenches are wavy lines, and wherein the second series of trenches are substantially straight lines that are substantially orthogonal to locations of the first series of trenches.

Claim 43 (original): A method of forming container capacitors, comprising:

providing a semiconductor substrate;

forming an electrically insulative material over the substrate;

forming a pair of masking layers over the electrically insulative material; the pair of masking layers being a first masking layer and a second masking layer, the first masking layer being between the second masking layer and the electrically insulative material; the second masking layer having a thickness;

photolithographically forming a first pattern over the second masking layer, the first pattern comprising a first series of trenches;

transferring a substantial reproduction of the first pattern into the second masking layer to a depth which extends less than entirely through the thickness of the second masking layer;

after transferring the substantial reproduction of the first pattern into the second masking layer, photolithographically forming a second pattern over the second masking layer, the second pattern comprising a second series of trenches; at least some of the trenches of the second series crossing locations of at least some of the trenches of the first series;

transferring a substantial reproduction of the second pattern into the second masking layer to a depth which extends less than entirely through the thickness of the second masking layer, the combined depths to which the substantial reproductions of the first and second patterns are transferred into the second masking layer being entirely through the thickness of the second masking layer; the combined transferring of the

substantial reproductions of the first and second patterns into the second masking layer forming the second masking layer into a patterned mask over the first masking layer; the patterned mask having a capacitor container pattern which defines capacitor container locations as regions where overlap occurs between trenches of the second series and trenches of the first series;

transferring a substantial reproduction of the capacitor container pattern from the patterned mask into the first masking layer;

transferring a substantial reproduction of the capacitor container pattern from the first masking layer into the electrically insulative material to form capacitor containers within the electrically insulative material; and

forming a first capacitor electrode, dielectric material and second capacitor electrode extending within the capacitor containers to form capacitor structures within the capacitor containers.

Claim 44 (original): The method of claim 43 wherein the second series of trenches are substantially orthogonal to the first series of trenches.

Claim 45 (original): The method of claim 43 wherein the capacitor container locations are substantially diamond in shape.

Claim 46 (original): The method of claim 43 wherein the capacitor container locations are substantially rectangular in shape.

Claim 47 (original): The method of claim 43 wherein either the first series of trenches or the second series of trenches are wavy lines.

Claim 48 (original): The method of claim 43 wherein the first series of trenches are wavy lines.

Claim 49 (original): The method of claim 43 wherein the first series of trenches are wavy lines, and wherein the second series of trenches are substantially straight lines that are substantially orthogonal to the first series of trenches.

Claim 50 (original): The method of claim 43 wherein the electrically insulative material comprises a doped silicon oxide.

Claim 51 (original): The method of claim 50 wherein the electrically insulative material comprises a thickness of from about 5,000Å to about 30,000Å.

Claim 52 (original): The method of claim 50 wherein the first masking layer comprises amorphous carbon.

Claim 53 (original): The method of claim 52 wherein the first masking layer comprises a thickness of from about 1,000Å to about 10,000Å.

Claim 54 (original): The method of claim 52 wherein the second masking layer comprises silicon oxynitride or silicon nitride.

Claim 55 (original): The method of claim 52 wherein the second masking layer comprises a thickness of from about 300Å to about 5,000Å.

Claim 56 (original): The method of claim 43 wherein the first pattern is transferred about halfway through the thickness of the second masking layer.

Claim 57 (original): The method of claim 43 further comprising incorporating the container capacitors into a DRAM array.

Claims 58-69 (canceled).